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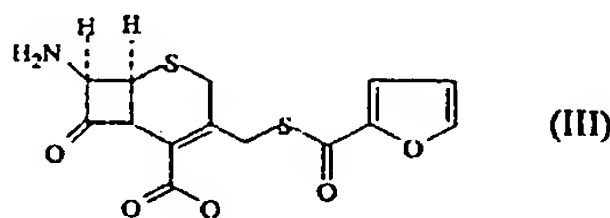
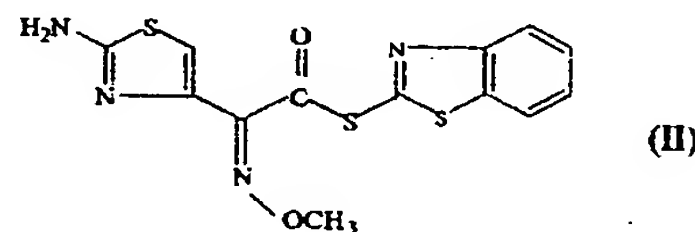
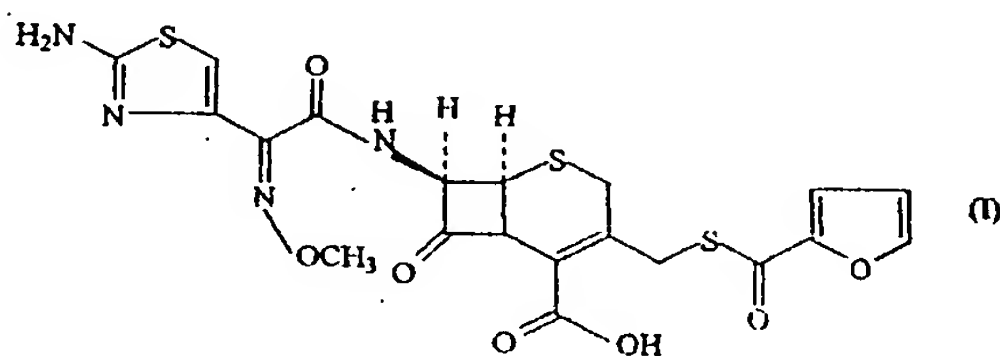
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(54) Title: A METHOD FOR MANUFACTURE OF CEFTIOFUR



(57) Abstract: A process for preparation of ceftiofur of formula (I) of high purity and substantially free from impurities is disclosed. The process comprises reacting [2-(2-aminothiazol-4-yl)]-2-syn-methoxyimino acetic acid-2-benzothiazolyl thioester of formula (II), with 7-amino-3-(2-furanylcarbonylthiomethyl)-3-cephem-4-carboxylic acid of formula (III) in the presence of a mixture of an water-immiscible inert organic solvent and water and in the presence of an organic base and isolating ceftiofur of formula (I) substantially free of impurities by, d) adding water to the reaction mixture and selectively partitioning the impurities in the organic phase and ceftiofur (I) in the form of a salt with the base in the aqueous phase, e) acidifying the aqueous phase containing ceftiofur (I) in the form of a salt with the base in the presence of a mixture containing a water-miscible and a water-immiscible organic solvent and in the presence of a saturated aqueous solution of an alkali or alkaline earth containing salt, to partition ceftiofur (I) in the organic phase, and f) isolating ceftiofur (I) of high purity and substantially free of impurities by evaporation of the organic solvent or precipitation by addition of a co-solvent.

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